

Figure 1

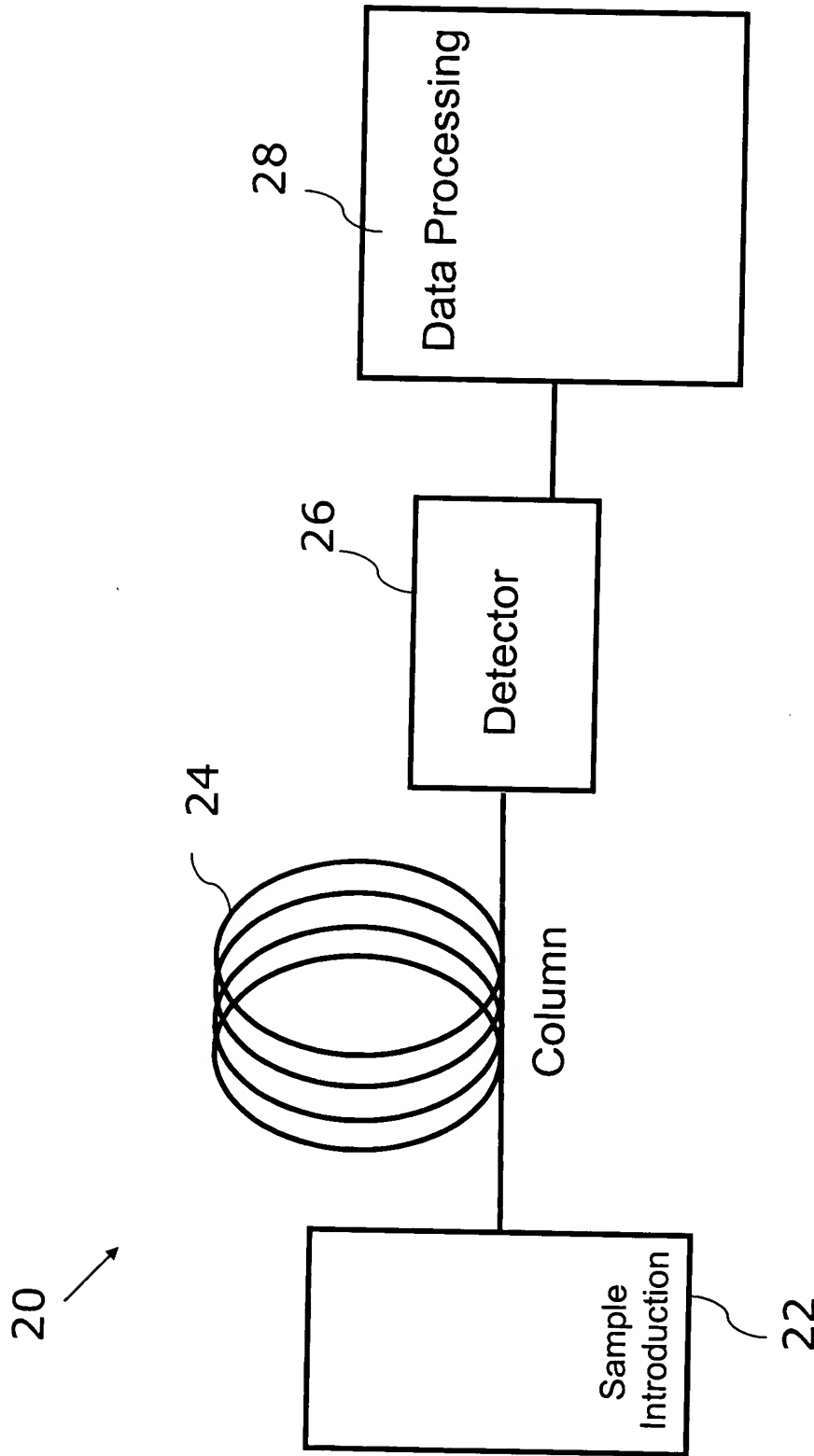


Figure 2

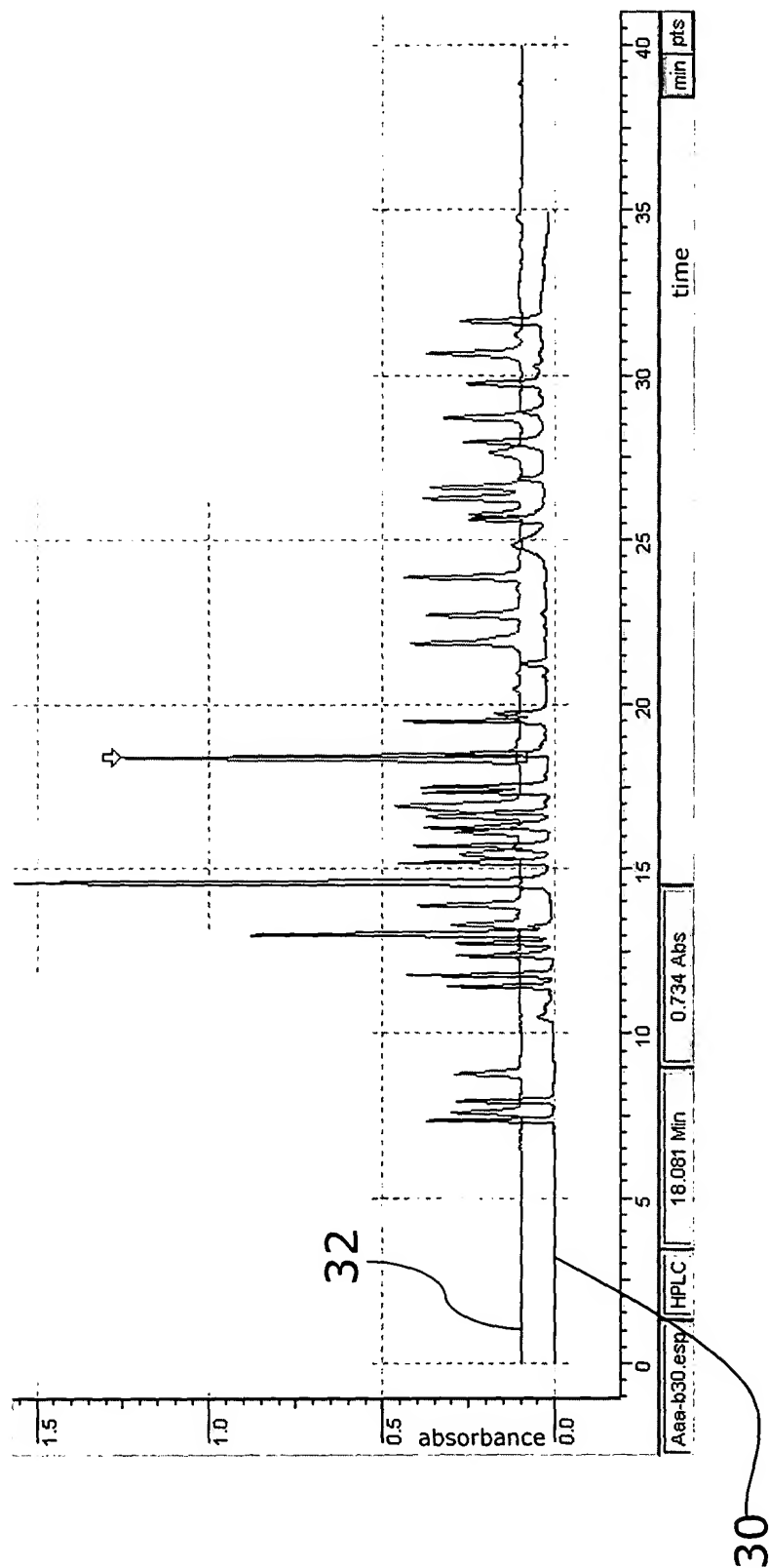
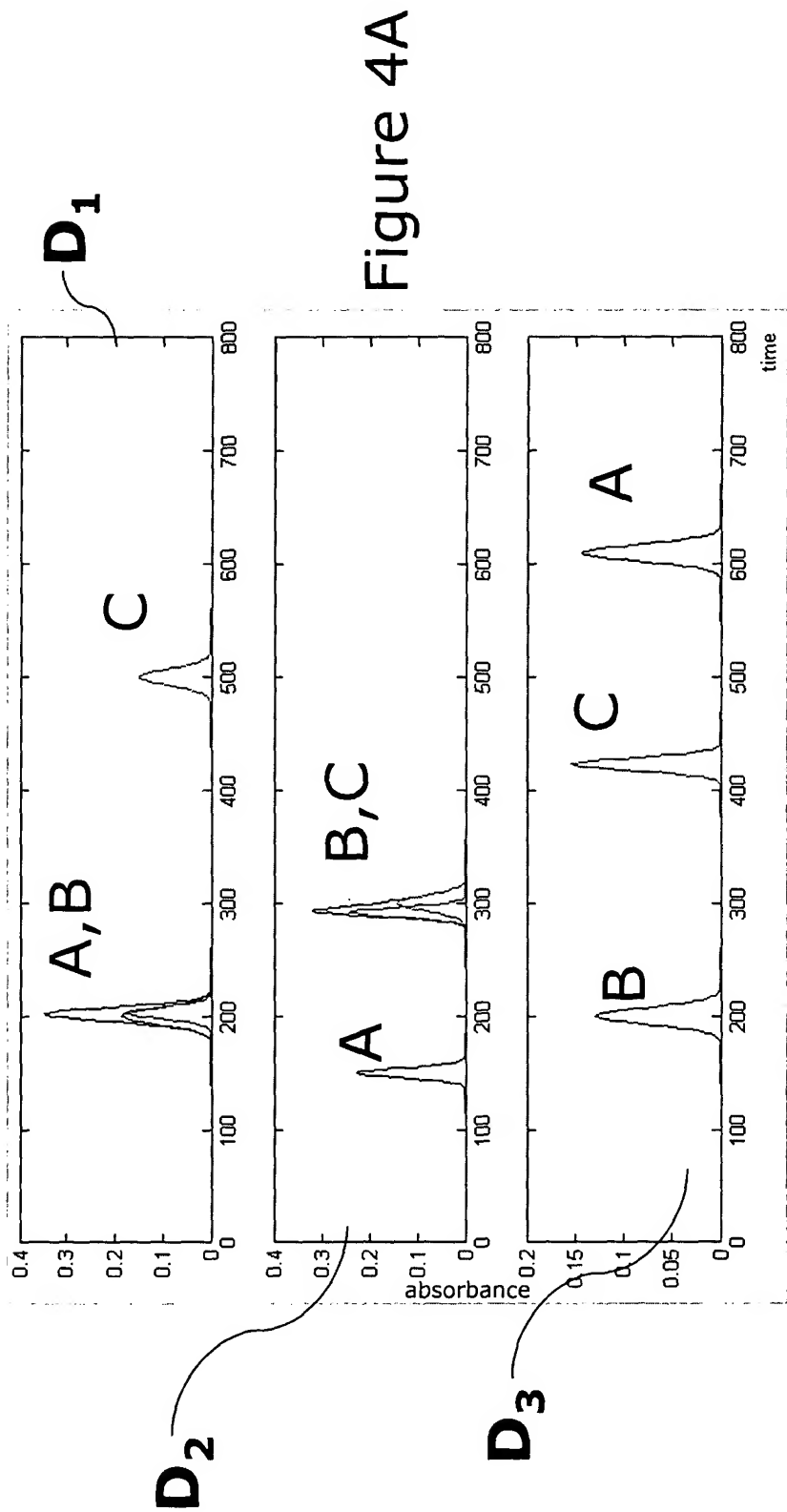


Figure 3



**Figure 4B**

| # | Retention times |                |                |
|---|-----------------|----------------|----------------|
|   | D <sub>1</sub>  | D <sub>2</sub> | D <sub>3</sub> |
| A | 200             | 150            | 610            |
| B | 203             | 292            | 200            |
| C | 500             | 300            | 423            |

Title: Methods for Characterizing a Mixture of Chemical  
Compounds  
Inventor: Bogomolov, et al.  
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Express Mail Label No.: EL954151666US  
Sheet 5 of 18

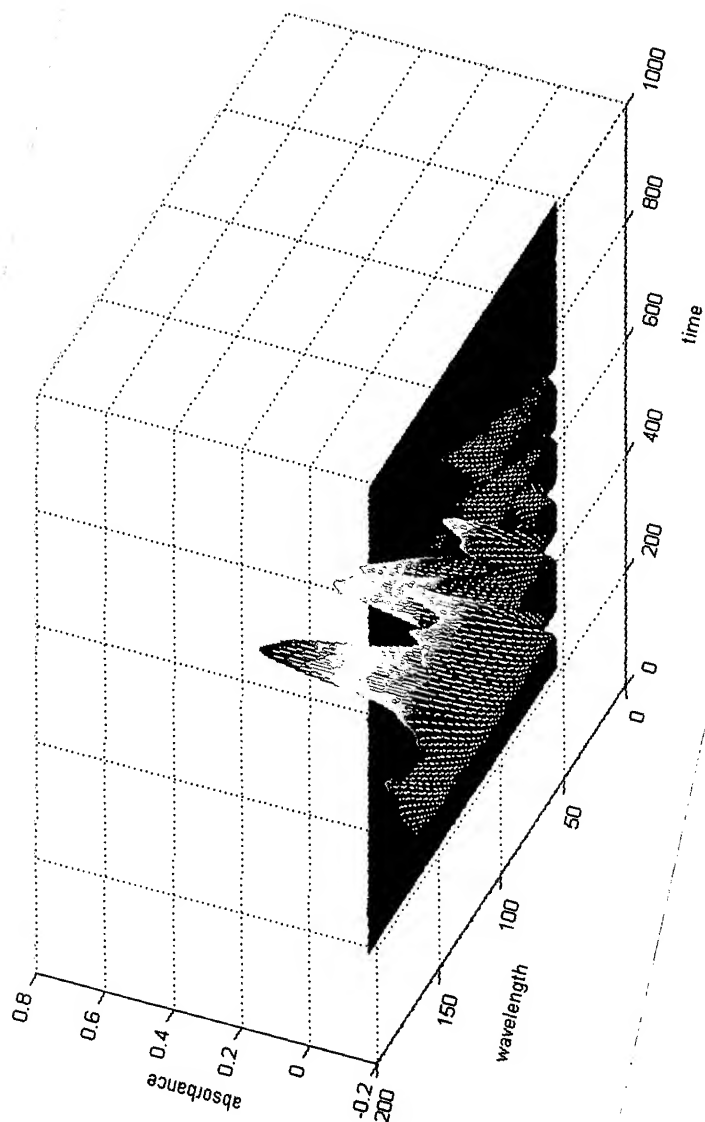


Figure 5A

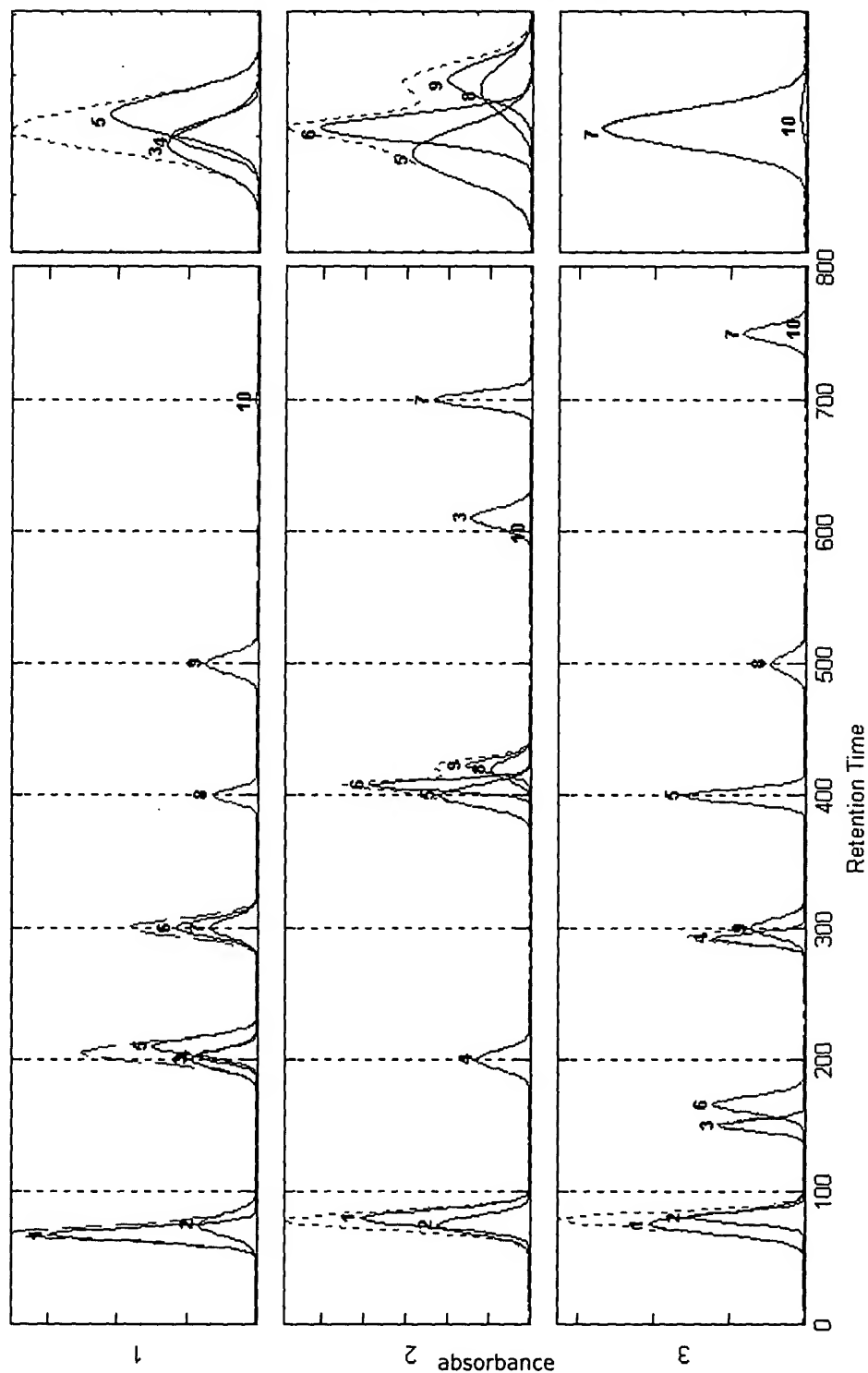


Figure 5B

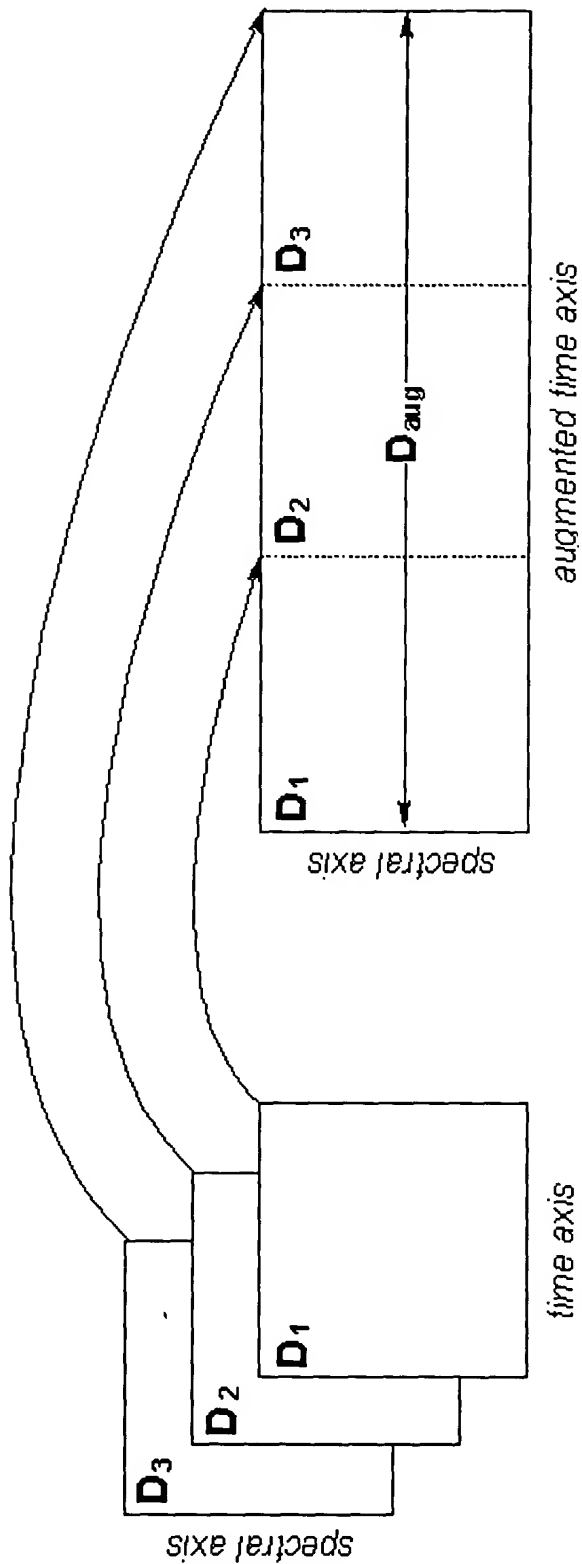


Figure 6

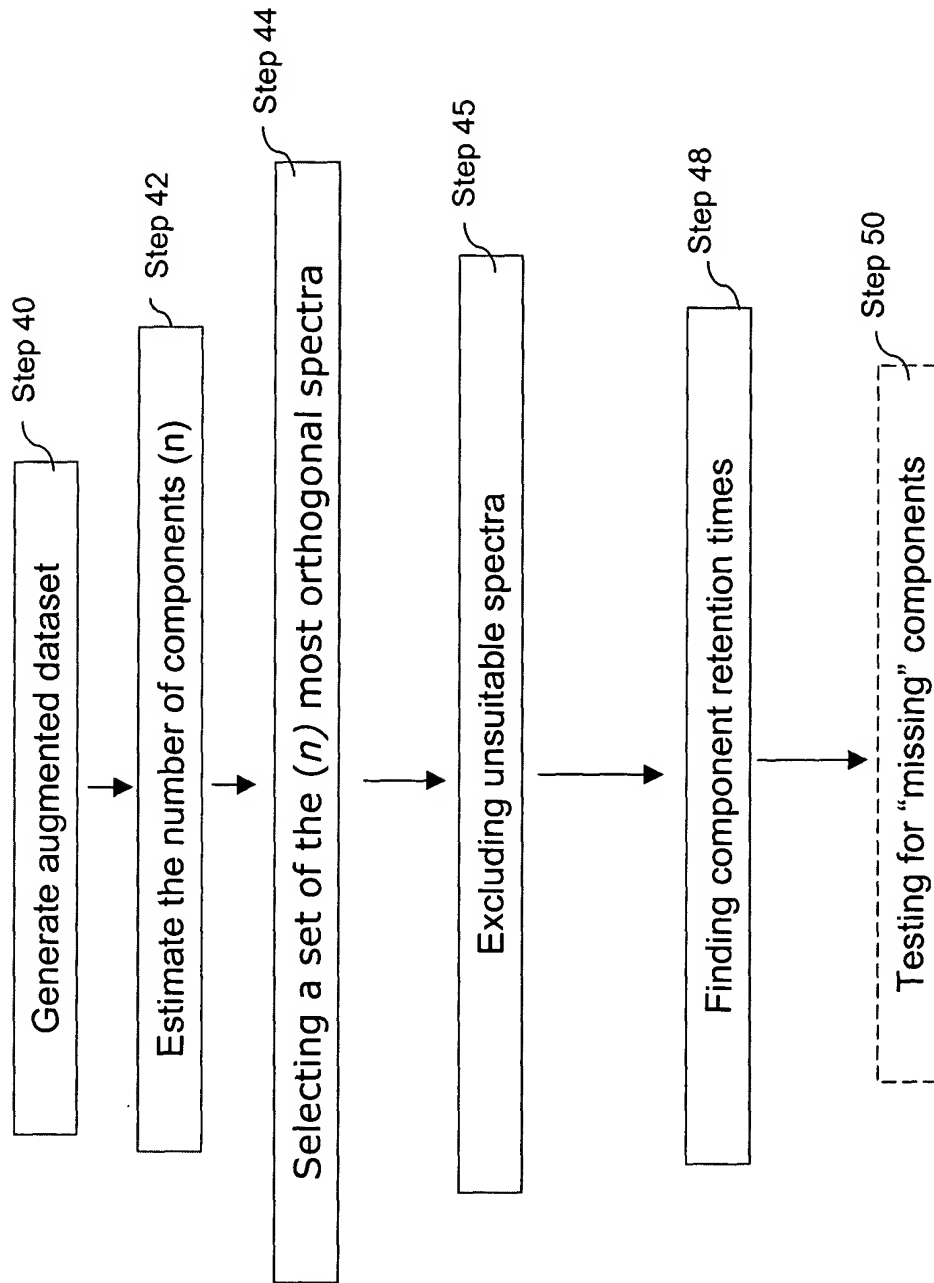
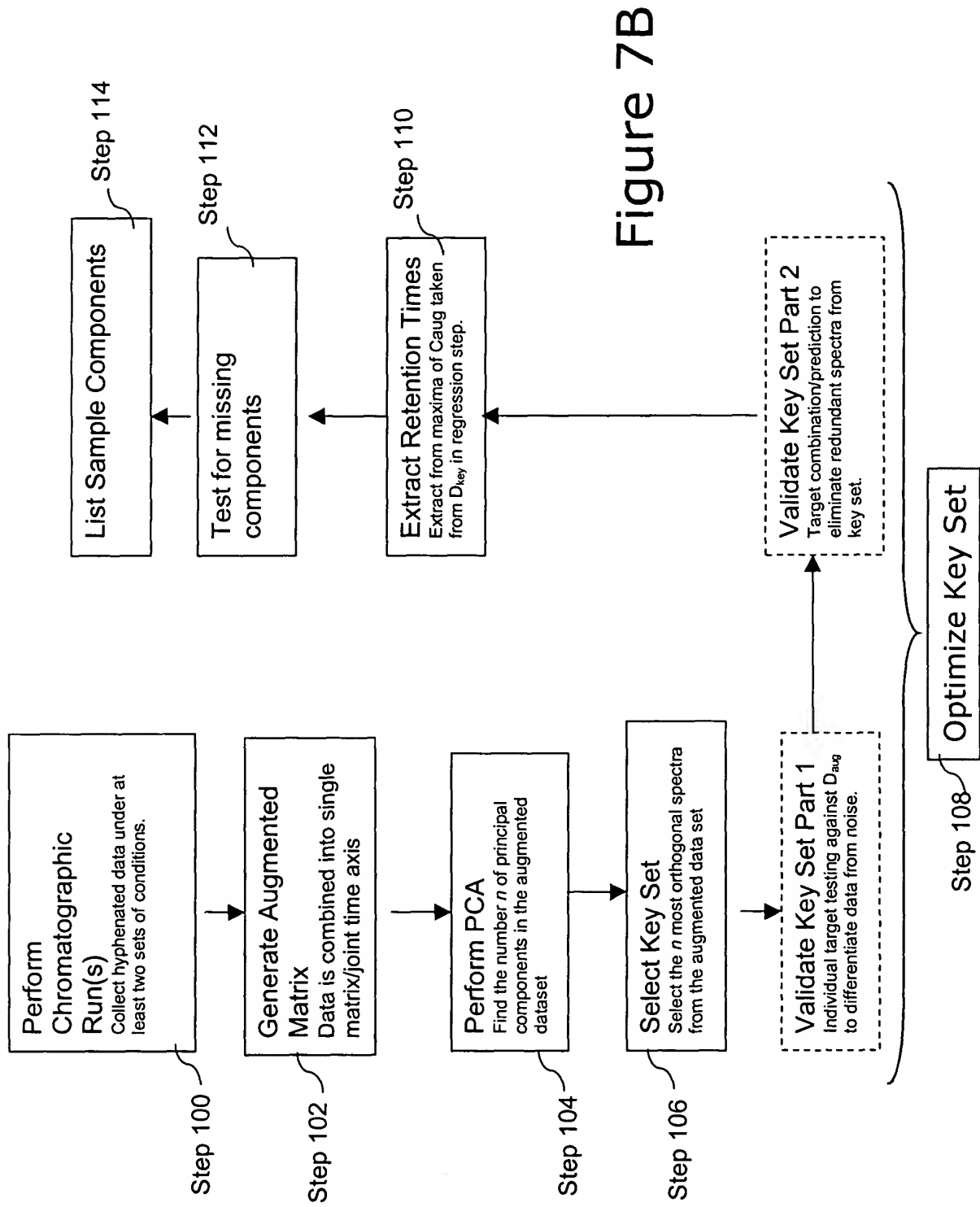


Figure 7A





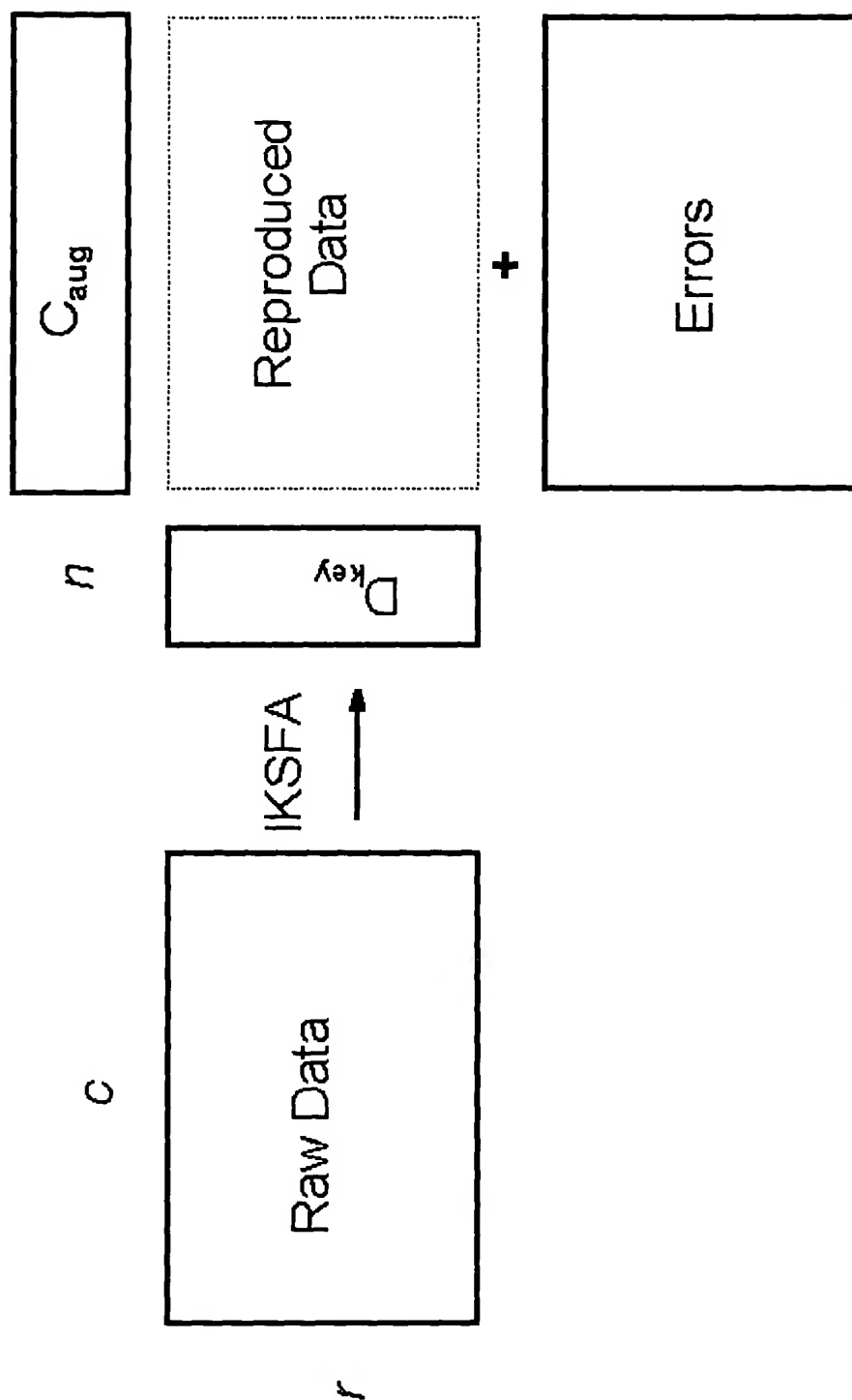


Figure 8

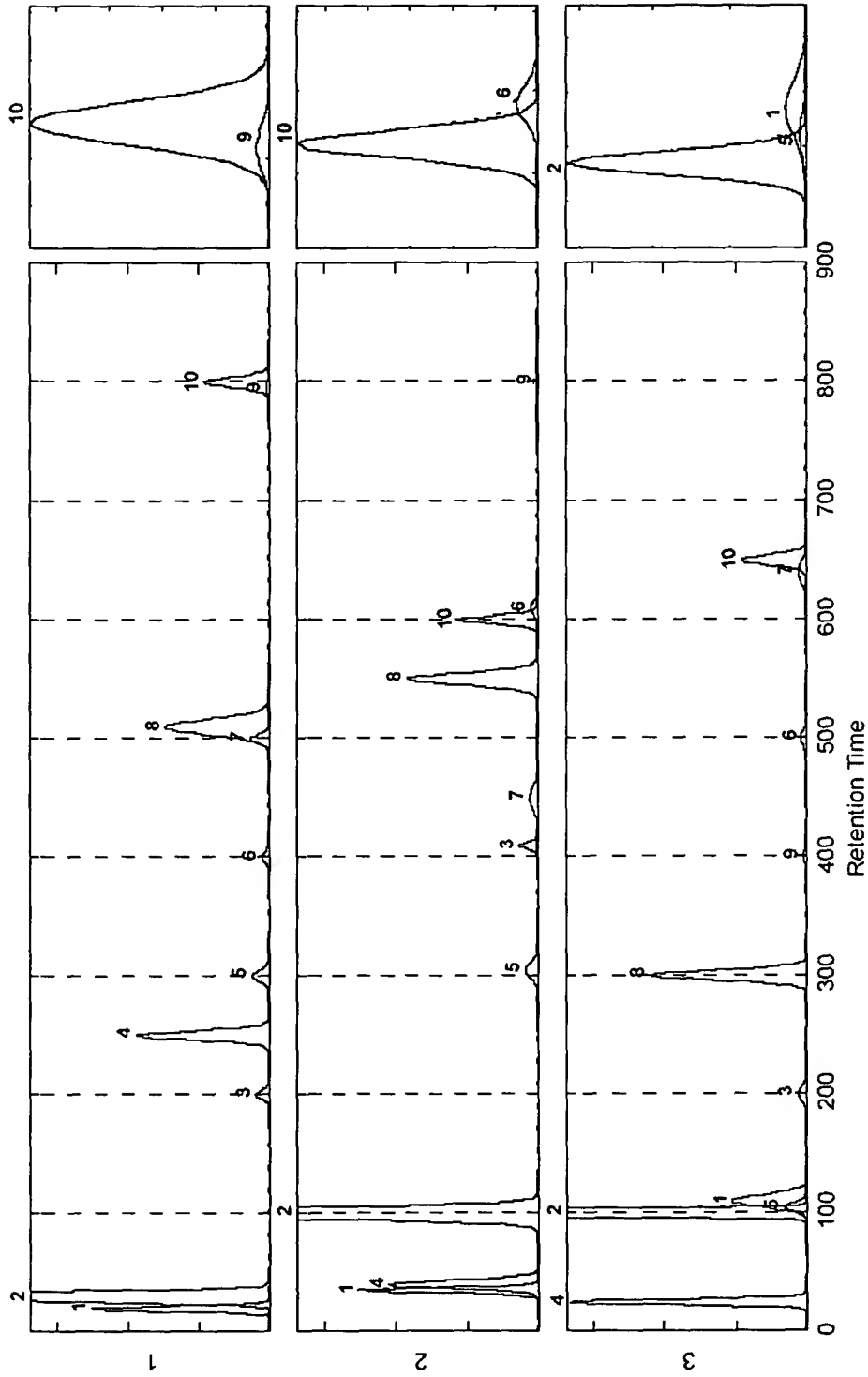


Figure 9A

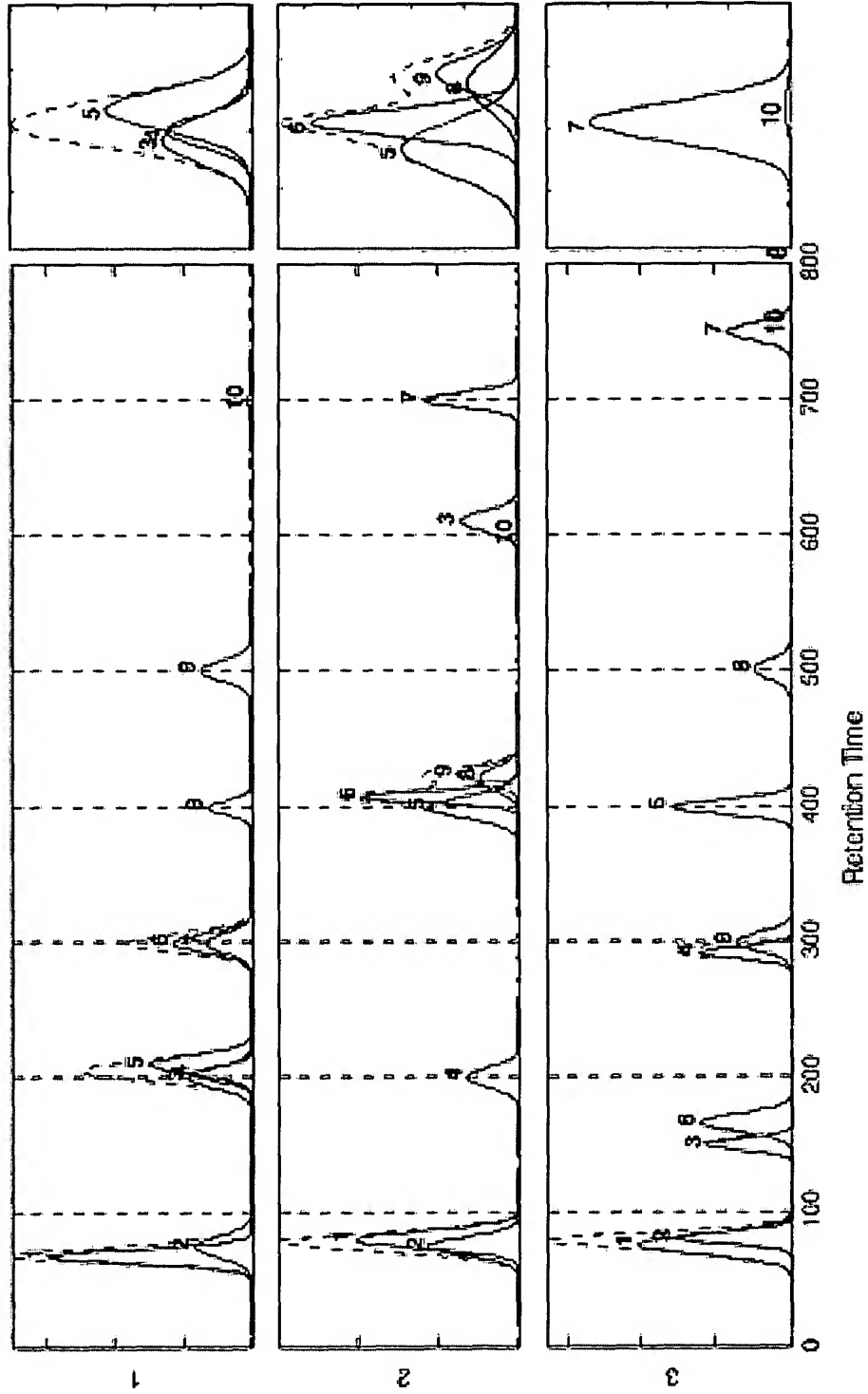


Figure 9B

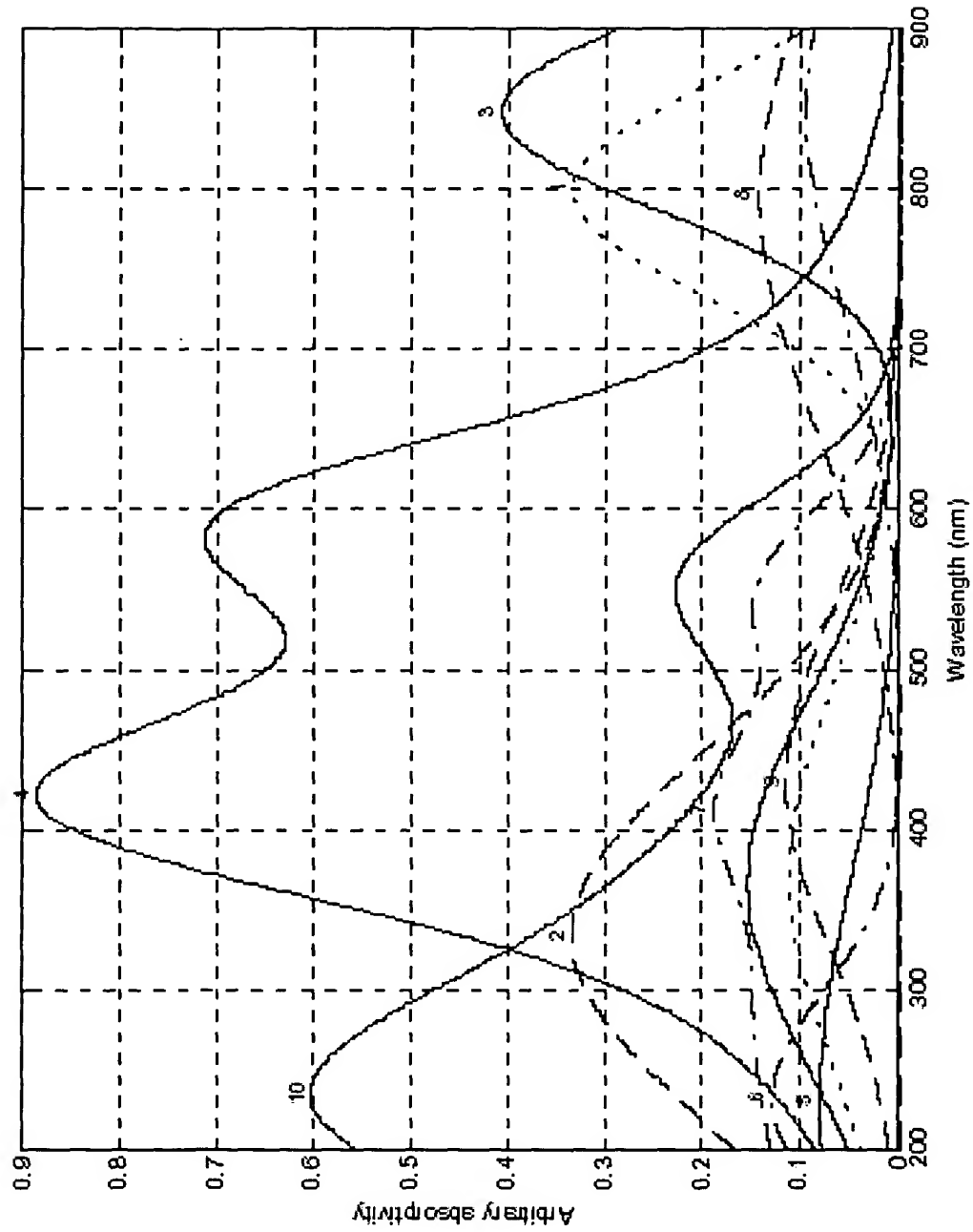


Figure 9C

Figure 9D

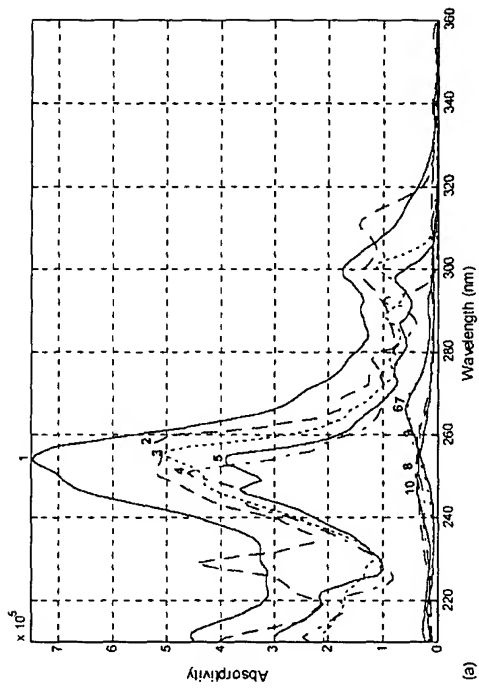
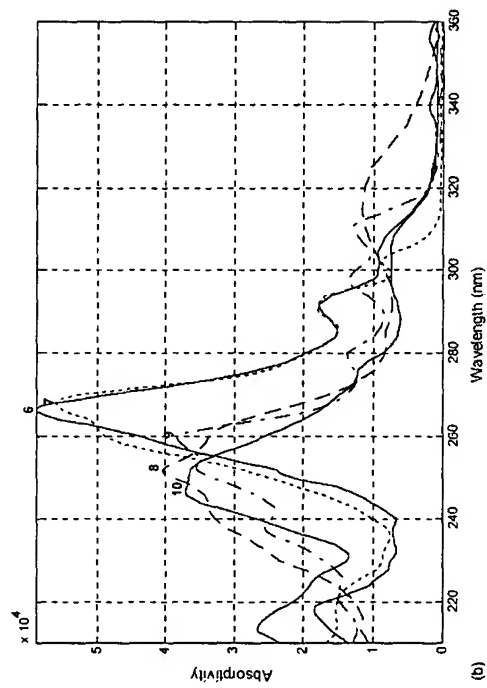


Figure 9E



Absorbivity ( $\text{mol}^{-1} \text{cm}^{-1}$ ) spectra used to build Series B: (1) 9-carboxyphenanthrene; (2) 9-cyanophenanthrene; (3) 9-bromophenanthrene; (4) phenanthrene; (5) 9-acetylaminophenanthrene; (6) 2-acetylaminophenanthrene; (7) 2-acetylaminophenanthrene; (8) 3-acetylaminophenanthrene; (9) 3-acetylaminophenanthrene; (10) 3-hydroxyphenanthrene. (a) Spectra 1-10; (b) spectra 6-10.

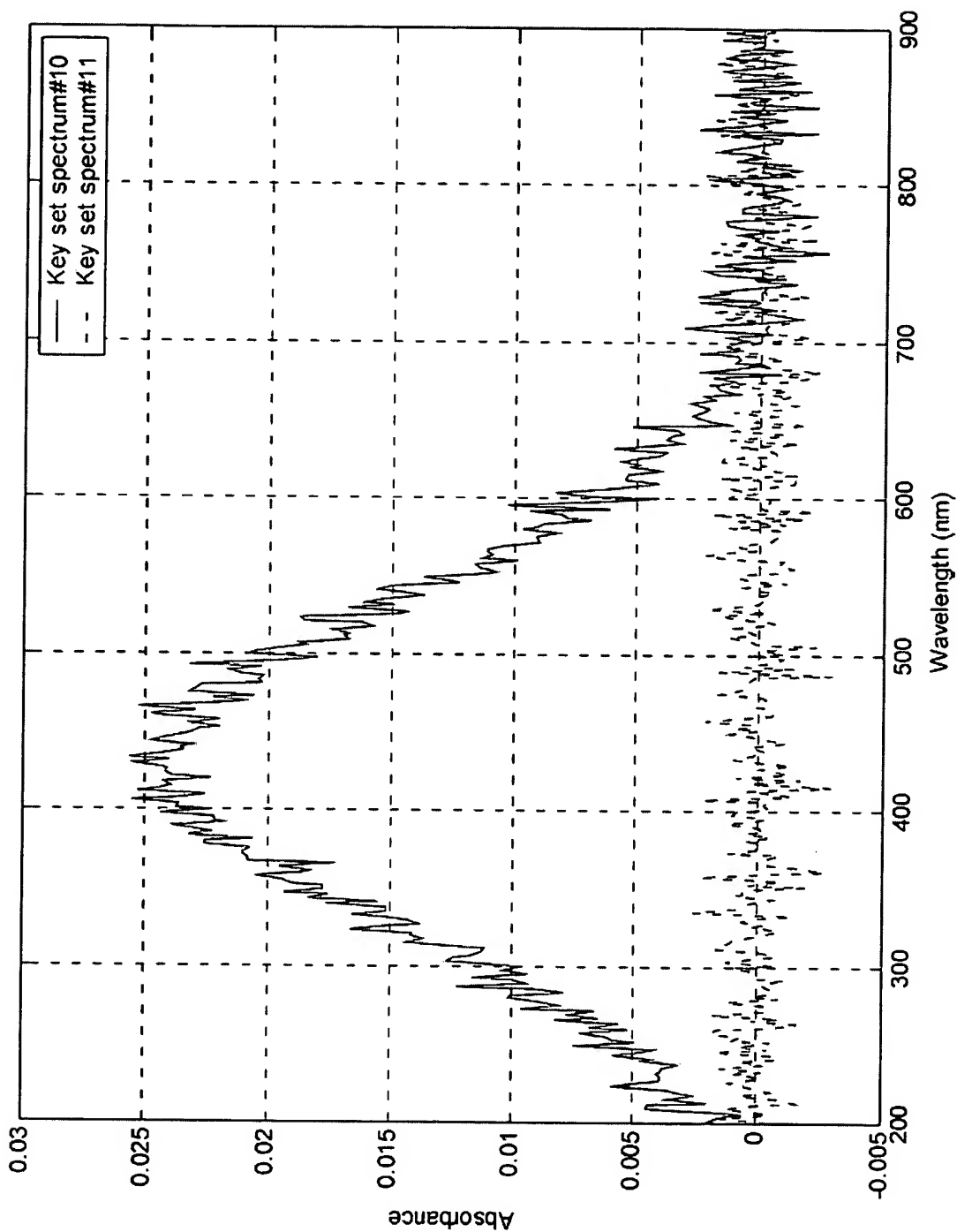


Figure 9F

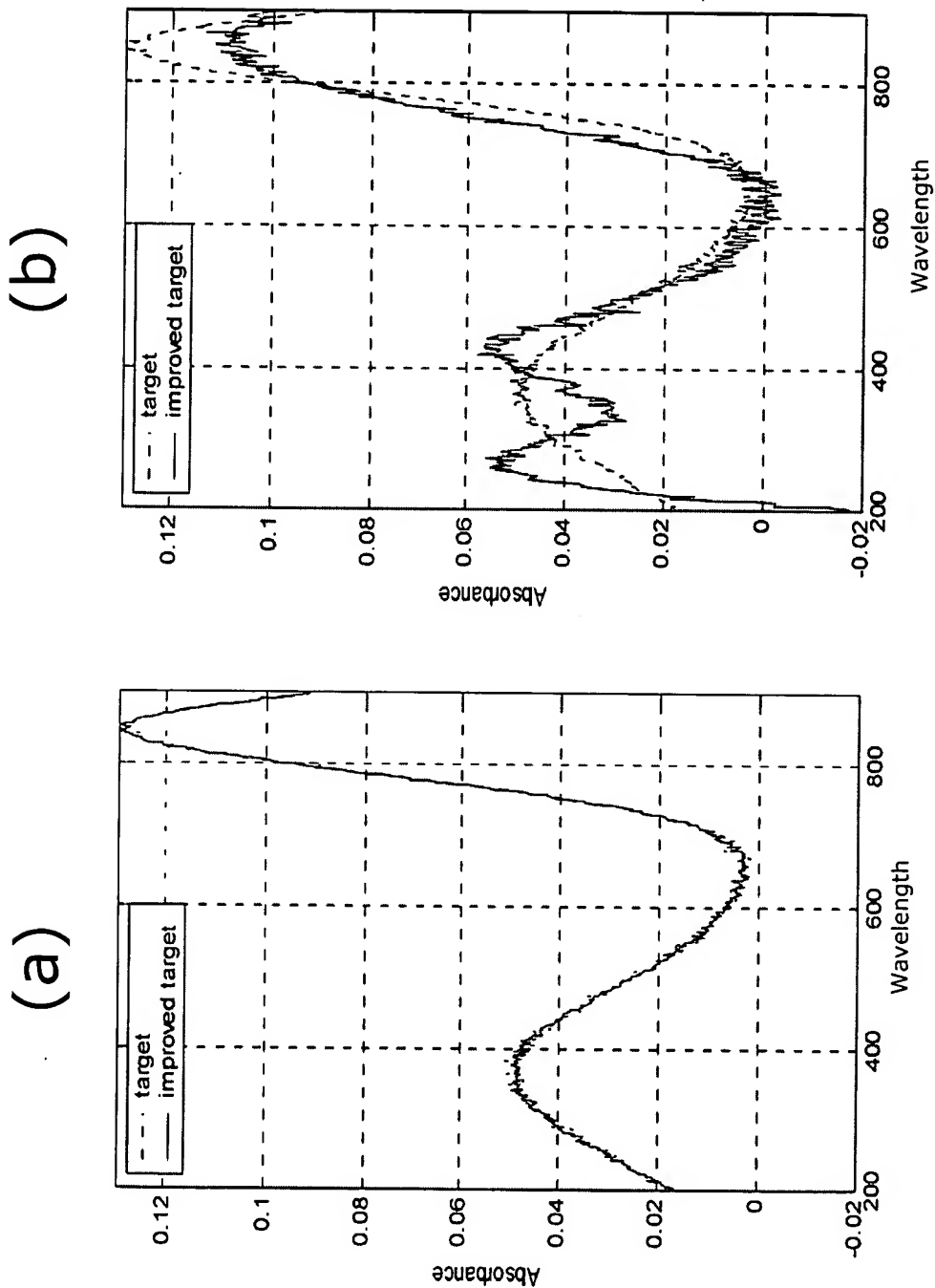


Figure 9G

Figure 9H



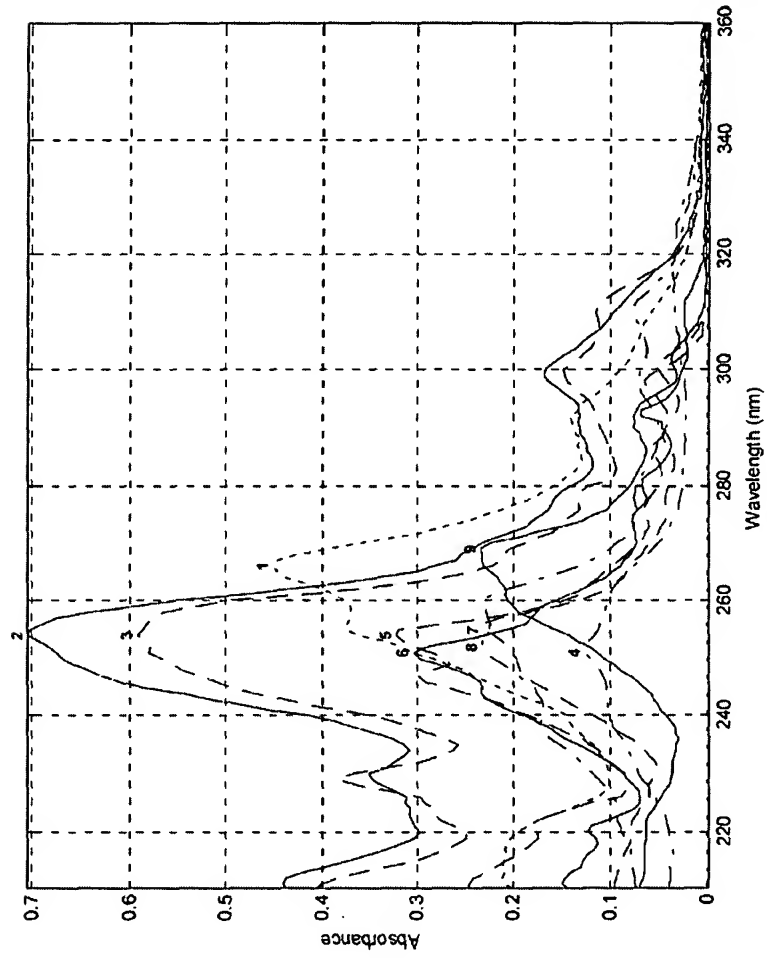


Figure 9I

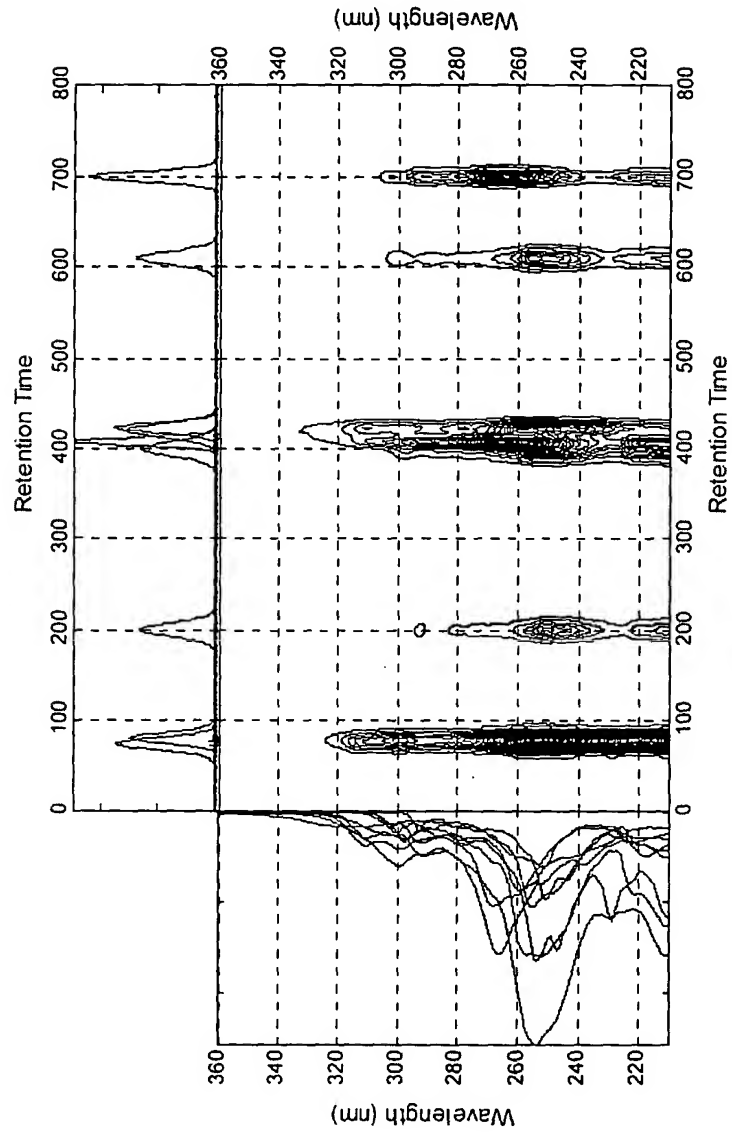


Figure 9J